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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|------------------------|
| 10/574,632 | 04/05/2006 | Johann Hipp | MFA-20302/04 | 4098 |
| 25006 7590 06/11/2007 GIFFORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021 | | | EXAMINER BRAINARD, TIMOTHY A | |
| | | | ART UNIT 3662 | PAPER NUMBER |
| | | | MAIL DATE 06/11/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/574,632 | HIPP, JOHANN | |
| | Examiner | Art Unit | |
| | Timothy A. Brainard | 3662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-42 and 55-62 is/are rejected.
- 7) ☒ Claim(s) 43-54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: On page 3 line 18 of specification, I believe that sine should be since.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 33, 34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunne (US 2001/0012104). Dunne teaches (claim 33 and 55) a method of distance measurement comprising transmitting pulsed electromagnetic radiation using at least one transmitter (fig 1, item 20), detecting reflected signal pulses using at least one receiver wherein the receiver comprises an amplifier for the generation of an analog received signal and a device having at least one threshold lying in the noise with which a sequence of logical pulses can be generated from the analog received signal(fig 1, item 24 and para 14), measuring the distances from objects at which the transmitted radiation pulses are reflected by determining a pulse propagation time (para 8) and measuring noise using the receiver with specific points in time being determined at which at least one threshold of the receiver lying in the noise is passed through and with

Art Unit: 3662

changes in the noise caused by the signal pulses being detected by averaging a plurality of individual measurements respectively including the specific points in time (para 12 and 52), (claim 34) an individual measurement is generated for each transmitted radiation pulse (para 12), (claim 36) a sequence of logical pulses is generated by means of the threshold of the receiver lying in the noise from the analog received signal containing the noise pulses and/or noise pulses changed by the signal pulses with the individual measurement being derived from the sequence (para 52), (claim 37) the flanks of the logical pulses are used as points in time of the individual measurements (para 52 and 57), and (claim 42 and) the number of passing through of the threshold of the receiver is counted or average in particular with the correct sign for each time window in the averaging (para 52), (claim 56) the device with threshold lying in the noise comprises at least one comparator (para 14), (claim 57) a clock for the emission of cycle pulses of a known width with a known frequency and a counter with which the cycle pulses emitted during a time period are provided for the determination of time periods which respectively pass from the transmission of a radiation pulse up to a point in time corresponding to a flank of a logical pulse (para 39). With respect to claim 41 and 58, It is inherent that a time pattern is used in the averaging of the individual measurements in which the measured time is divided into a plurality of sequential time windows with one memory cell of at least one time pattern memory preferably being associated with each time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35, 38, 39, 60 61, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne. It is expected that Dunne would (claim 35 and 60) generate and average of the individual measurements and the detection of the changes in the noise take place by means of a software-aided evaluation method, (claim 38 and 61) the points in time of the individual measurement are into at least one memory and (claim 39 and 62) are subsequently transferred to a further memory with the points in time being stored in the further memory in an arrangement taking their respective time information into account.

Claim 40 and 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne as applied to claim 33 above, and further in view of Munro (US 2004/0135992). Munro teaches averaging of the individual measurements carried out in at least one time pattern memory with the same time pattern memory being increased by a value n in the case of the rising pulse flank and being reduced by the value n in the case of a falling flank or vice versa with the value 1 used for n (fig 7). It would have been obvious to modify Dunne to include averaging of the individual measurements carried out in at least one time pattern memory with the same time pattern memory being increased by a value n in the case of the rising pulse flank and being reduced by the value n in the

Art Unit: 3662

case of a falling flank or vice versa with the value 1 used for n because it is one of multiple design choices with no new or unexpected results.

Allowable Subject Matter

Claims 43-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy A. Brainard whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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